```
=> d his full

     (FILE 'USPAT' ENTERED AT 16:35:22 ON 29 JAN 1998)
                ACT TDTH2/A
               ---------
L1   (      6880)SEA PLU=ON  (UNIVERSAL OR GENERIC OR COMMON)(3A)(ADAPT### OR
                 INTERFAC###)
L2   (     17611)SEA PLU=ON  (RADIO OR AUDIO OR VOICE)(5A)(DATA OR PROTOCOL OR
                  TRANSFER####(2A)MODE)
L3   (       109)SEA PLU=ON  L1 (P) L2
L4   (       396)SEA PLU=ON  395/200.67,200.61,200.62,200.47,200.49,200.36,200
                 .77/CCLS
L5   (      1041)SEA PLU=ON  348/7,6,12,13/CCLS
L6   (       349)SEA PLU=ON  711/1,4,102,103/CCLS
L7   (       698)SEA PLU=ON  455/4.2,5.1,6.3,3.2/CCLS
L8             5 SEA PLU=ON  L3 AND ((L4 OR L5 OR L6 OR L7))
               ---------
L9          2082 SEA PLU=ON  (UNIVERSAL OR GENERIC)(3A)(INTERFAC### OR ADAPT##
                 #)
L10            0 SEA PLU=ON  AUTOMATIC####(5A)((DATA(2W)FORMAT###)(5A)RECOGNI#
                 #####)
L11          137 SEA PLU=ON  (DATA(2W)FORMAT###)(5A)RECOGNI######
L12            1 SEA PLU=ON  L9 (L) L11
L13            1 SEA PLU=ON  5432925/UREF
L14            2 SEA PLU=ON  L11 AND ((L4 OR L5 OR L6 OR L7 OR L8))
```

example corresponds to the radio communication terminal of FIG. 1 operating at the. . .

DETDESC:

DETD(53)

FIG. . . . compared with the received data to detect an interference, and if required, the data is again transmitted. When the transmitted **data** is received by an opposite **radio** communication terminal, the communication control mechanism 33 of the opposite terminal processes the data, which is supplied to the display. . .

DETDESC:

DETD(59)

According . . . data transmission and reception as shown in FIGS. 1 and 2. In this case, the input mechanism 11 of the **radio** communication terminal 1 receives input **data**, and the input data processing mechanism 12 converts the data into a data sequence that is processible in the computer.. . .

DETDESC:

DETD(62)

In . . . 91 of FIG. 12, a reception mechanism 25 of the repeater 2 checks to see whether or not there is **data** to receive transmitted from a **radio** communication terminal 1 at a frequency of F. If there is no data to receive, the flow returns to Step. . . other hand, if Step 92 determines that the format of the data does not agree with the predetermined format, the **data** transmitted from the **radio** communication terminal 1 at the frequency F is ignored, and the flow returns to Step 91.

DETD(19)

Alternatively, . . . information before transmission for correct presentation by the pager once received. Alternatively, the paging terminal 112 may be adapted to **recognize** specific **data formats** and perform message format processing upon receipt of a queued selective call message. Using a PSTN connection or equivalent transmission. . .

10. 5,347,545, Sep. 13, 1994, Multi-terminal communication equipment for smoothly and correctly communicating data between a plurality of terminal equipments; Tomoyuki Ishii, et al., 375/259; 340/825.04 :IMAGE AVAILABLE:

US PAT NO: 5,347,545 :IMAGE AVAILABLE: L15: 10 of 24

ABSTRACT:
A multiple-terminal communication equipment comprises a data communication unit, an information processing unit, and a data input/output unit, for realizing radio communication between at least two terminals. The multiple-terminal communication equipment transmits, before transmitting data from one terminal, a transmission disabling code for disabling data transmission of the other terminals, and after completely transmitting the data from the one terminal, a transmission enabling code for canceling the transmission disabled states of the other terminals. This arrangement is capable of smoothly and correctly communicating data between a plurality of terminal equipments.

DETDESC:

DETD(35)

If . . . returns to the start, and if there is the input data, Step 43 checks to see whether or not another **radio** communication terminal is transmitting **data**. If Step 43 determines that no terminal is transmitting data, Step 44 processes the input data, and Step 45 transmits. . .

DETDESC:

DETD(46)

Data . . . the communication control mechanism 23 and transferred to the system-to-system communication mechanism 28, which converts the data and instructions into **data formats** that are **recognizable** by peripherals and another system 29, and transmits the converted data to the peripherals and another system 29. The system-to-system. . .

DETDESC:

DETD(47)

FIG. . . . shown in the figure, the repeater 20 is connected to the peripherals and another system 29 through a wired or **radio** network. **Data** to be transferred to the peripherals or another system 29 is not necessarily the same as that being communicated with. . .

DETDESC:

DETD(49)

FIG. . . . block diagram showing another example of a radio communication terminal in a multiple-terminal communication system according to the invention. This **radio** communication terminal transmits and receives **data** at the same frequency f. Namely, this

DETDESC:

DETD(11)

A . . . 112, a means by which data may be inserted into screen storage database 156, through database manager 155. For instance, **radio** station personnel may key in **data** to be associated with any particular entry of screen storage database, to permit such information to be transmitted over the. . .

DETDESC:

DETD(14)

Referring . . . FIG. 2. A signal transmitted by transmission system 100 of FIG. 1 is received by antenna 211 and demodulated into **audio** and **data** components in a conventional manner by demodulator 201. Demodulator 201 is of conventional design for detecting and demodulating **audio** and **data** signals transmitted over a main broadcast channel and a subcarrier of that channel, respectively. Audio program information from demodulator 201. . .

9. 5,416,473, May 16, 1995, Calendar driven selective call messaging system and operating method; Harry G. Dulaney, III, et al., 340/825.44, 825.22 :IMAGE AVAILABLE:

US PAT NO: 5,416,473 :IMAGE AVAILABLE: L15: 9 of 24

ABSTRACT:
An electronic information processing device (300) capable of communicating a message to a paging terminal (112) uses an input device (309) to enter the message, select a messaging subscriber and their corresponding selective call address identifier, and schedule communication of the message to the paging terminal (112) for transmission to at least one selective call receiver corresponding to the selected messaging subscriber. The device uses a micro-controller (301) including at least one electronic memory (304, 305, 306) and a processor (303), to execute a program that controls operation of the device (300), maintain a registry of messaging subscribers (400) in the memory (304, 305, 306), and implement a real-time calendar for effecting communication of a selective call address identifier and corresponding message to the paging terminal (112) via a data port (308) in response to a scheduled communication of the message.

DETDESC:

DETD(3)

After . . . of message formats. These message formats are commonly referred to as message sources, each of which denotes a mode of **data** (e.g., characters, numbers, **audio**, graphics, or "just a beep") being sent to the pager. FIG. 1 illustrates a number of conventional selective call receivers. . .

DETDESC:

DETD(16)

Referring . . . selective call address identifier 402 that may include multiple source identifiers. As discussed earlier, source identifiers denote a mode of **data** (e.g., characters, numbers, **audio**, graphics, or "just a beep") being sent to the pager.

DETDESC:

=> d l15 7-10 cit,ab,kwic

7. 5,555,288, Sep. 10, 1996, Voice processing system with a configurable telephone line interface; James A. Wilson, et al., 379/67, 102.02, 229 :IMAGE AVAILABLE:

US PAT NO: 5,555,288 :IMAGE AVAILABLE: L15: 7 of 24

ABSTRACT:
An electronic voice response system includes an interface unit which couples the voice response system to a plurality of trunk groups, each including a plurality of telephone lines, which are each characterized by a set of operating parameters. The system additionally includes a control unit which is responsive to commands by an administrator of the system, for assigning configuration files which contain pre-defined sets of configuration values which correspond to the set of operating parameters to selected trunk groups. The control unit is additionally responsive to commands by the administrator for individually altering selected configuration values and for generating new state definitions for a particular trunk group. The control unit generates a state machine for each trunk group according to the assigned configuration file and responds to events received over each telephone line in accordance with the definition contained in a corresponding state machine.

DETDESC:

DETD(12)

Each . . . to bus 210 and operates under control of control unit 201 to receive and transmit documents according to known facsimile **data** transmission **formats**. **Voice recognition** module 222 is coupled to bus 210 and operates under control of control unit 201 to convert certain speech utterances. . .

8. 5,491,838, Feb. 13, 1996, Broadcast system with associated data capabilities; Tsutomu Takahisa, et al., 455/66, 45, 186.1 :IMAGE AVAILABLE:

US PAT NO: 5,491,838 :IMAGE AVAILABLE: L15: 8 of 24

ABSTRACT:
A broadcast system includes a device to compare program material to be transmitted with a database of known material, and to transmit along with the program material data corresponding to that program material. A corresponding receiving system stores the data in memory and displays, at the selection of the user, the data corresponding to the program material. The user selectively stores the data on a magnetic recording card for electronic coupon or other uses.

DETDESC:

DETD(5)

The . . . conventional subcarrier channel input of transmitter 110. The manner of making this conversion will depend on the particular program material **recognizer** 106 employed and the desired **data format** for transmission, and may readily be accomplished by one skilled in the art. In a preferred embodiment, data stream generator. . .

The . . . conv[redacted]ional subcarrier channel input[redacted] transmitter 110. The manner of making this conversion will depend on the particular program material **recognizer** 106 employed and the desired **data format** for transmission, and mav readily be accomplished by one skilled in the art. In a preferred embodiment, data stream generator. . .

DETDESC:

DETD(11)

A . . . 112, a means by which data may be inserted into screen storage database 156, through database manager 155. For instance, **radio** station personnel may key in **data** to be associated with any particular entry of screen storage database, to permit such information to be transmitted over the. . .

DETDESC:

DETD(14)

Referring . . . FIG. 2. A signal transmitted by transmission system 100 of FIG. 1 is received by antenna 211 and demodulated into **audio** and **data** components in a conventional manner by demodulator 201. Demodulator 201 is of conventional design for detecting and demodulating **audio** and **data** signals transmitted over a main broadcast channel and a subcarrier of that channel, respectively. Audio program information from demodulator 201. . .

a data receiver, storing and displaying data as described above. . .

DETDESC:

DETD(49)

A "Station Activate" mode similarly mutes **audio** output while maintaining **data** reception, but reactivates **audio** output upon receipt of predetermined associated data from a-transmitting station. For example, receiver 1000 is configurable so that when it. . .

DETDESC:

DETD(50)

A "Listener Priority" mode similarly mutes **audio** output while maintaining **data** reception, but permits listener selection of the types of **data** that will result in **audio** output reactivation. For example, in a preferred embodiment user selection of the "Listener Priority" mode results in display of a. . . important) to "1-star" (only moderately important. In this embodiment, the user selects a level of priority for which reactivation of **audio** output or storage of **data** is desired. For example, if the user selects "3-star," then any program material having an importance of "3-star" or higher will be provided as **audio** output, or alternatively all **data** of "3-star" or higher priority will be displayed and/or stored. Thus, the user is provided with a great deal of. . .

DETDESC:

DETD(53)

Referring . . . with each of the modes discussed above. Receiver power controller 1006, coupled to data decoder 1004, receives control signals from **data** decoder 1004 and controls **audio**, **data**, and display circuitry of receiver 1000 in the manner discussed above for each of the selected modes. For example, if. . .

DETDESC:

DETD(64)

Referring . . . a single station or from separate stations. In one variation of this embodiment, sound tuner 104 is used for both **audio** and **data** in this mode. In another variation, sound tuner 104 and data tuner 1406 are merely tuned to the same frequency. . .

6. 5,564,073, Oct. 8, 1996, Broadcast system with associated data capabilities; Tsutomu Takahisa, 455/66; 348/473; 455/6.3, 154.1, 186.1 :IMAGE AVAILABLE:

US PAT NO: 5,564,073 :IMAGE AVAILABLE: L15: 6 of 24

ABSTRACT:
A broadcast system includes a device to compare program material to be transmitted with a database of known material, and to transmit along with the program material data corresponding to that program material. A corresponding receiving system stores the data in memory and displays, at the selection of the user, the data corresponding to the program material. The user selectively stores the data on a magnetic recording card for electronic coupon or other uses.

DETDESC:

DETD(5)

applications. Broadcast of the associated data commences earlier than that of the program material so that such data are available for display on a receiver when the program material is first received. The receiver is connectable to remote terminals for the collection of information relating to a user's pattern of storing and accessing the broadcast data. The receiver is implemented as a module that is connectable to displays of various sizes, and the receiver self-configures so that the signals it sends to the display are appropriate for the size of the display.

DETDESC:

DETD(5)

The . . . conventional subcarrier channel input of transmitter 110. The manner of making this conversion will depend on the particular program material **recognizer** 106 employed and the desired **data format** for transmission, and may readily be accomplished by one skilled in the art. In a preferred embodiment, data stream generator. . .

DETDESC:

DETD(11)

A . . . 112, a means by which data may be inserted into screen storage database 156, through database manager 155. For instance, **radio** station personnel may key in **data** to be associated with any particular entry of screen storage database, to permit such information to be transmitted over the. . .

DETDESC:

DETD(14)

Referring . . . FIG. 2. A signal transmitted by transmission system 100 of FIG. 1 is received by antenna 211 and demodulated into **audio** and **data** components in a conventional manner by demodulator 201. Demodulator 201 is of conventional design for detecting and demodulating **audio** and **data** signals transmitted over a main broadcast channel and a subcarrier of that channel, respectively. Audio program information from demodulator 201. . .

DETDESC:

DETD(18)

In some applications, it may be important for significant amounts of **data** corresponding to the broadcast **audio** material to be available as soon as the audio material is transmitted. Depending on the particular implementation of transmission system. . . in other instances the time delay may not be desirable. To ameliorate any problems that may be caused by this **data** lag, a conventional **audio** delay device is included in the path of the audio program material so that the broadcast of the audio material. . .

DETDESC:

DETD(48)

Referring . . . The "Full" mode corresponds to operation as described above in connection with FIG. 2, in which receiver 100 provides both **audio** output and display of associated **data**. A "Sound Only" mode ignores the associated data and makes receiver 1000 operate as a conventional **audio**-only **radio** receiver. A "**Data** Only" mode mutes **audio** output from receiver 1000 so that it functions solely as

ignores the associated data and makes receiver 1000 operate as a conventional **audio** only **radio** receiver. A "**Data** Only" mode mutes **audio** output from receiver 1000 so that it functions solely as a data receiver, storing and displaying data as described above. . .

DETDESC:

DETD(47)

A "Station Activate" mode similarly mutes **audio** output while maintaining **data** reception, but reactivates **audio** output upon receipt of predetermined associated data from a transmitting station. For example, receiver 1000 is configurable so that when. . .

DETDESC:

DETD(48)

A "Listener Priority" mode similarly mutes **audio** output while maintaining **data** reception, but permits listener selection of the types of **data** that will result in **audio** output reactivation. For example, in a preferred embodiment user selection of the "Listener Priority" mode results in display of a. . . important) to "1-star" (only moderately important. In this embodiment, the user selects a level of priority for which reactivation of **audio** output or storage of **data** is desired. For example, if the user selects "3-star," then any program material having an importance of "3-star" or higher will be provided as **audio** output, or alternatively all **data** of "3-star" or higher priority will be displayed and/or stored. Thus, the user is provided with a great deal of. . .

DETDESC:

DETD(51)

Referring . . . with each of the modes discussed above. Receiver power controller 1006, coupled to data decoder 1004, receives control signals from **data** decoder 1004 and controls **audio**, **data**, and display circuitry of receiver 1000 in the manner discussed above for each of the selected modes. For example, if. . .

DETDESC:

DETD(62)

Referring . . . a single station or from separate stations. In one variation of this embodiment, sound tuner 104 is used for both **audio** and **data** in this mode. In another variation, sound tuner 104 and data tuner 1406 are merely tuned to the same frequency. . .

5. 5,577,266, Nov. 19, 1996, Broadcast system with associated data capabilities; Tsutumo Takahisa, et al., 455/66, 45 :IMAGE AVAILABLE:

US PAT NO: 5,577,266 :IMAGE AVAILABLE: L15: 5 of 24

ABSTRACT:
A broadcast system includes a device to compare program material to be transmitted with a database of known material, and to transmit along with the program material data corresponding to that program material. A corresponding receiving system stores the data in memory and displays, at the selection of the user, the data corresponding to the program material. The user selectively stores the data on a magnetic recording card for electronic coupon or other uses. Various modes of operation are selectable by the user, and the data may be used as electronic coupons, or to control attached equipment, or to sound alarms, or for other

=> d l15 4-6 cit,ab,kwic

4. 5,579,537, Nov. 26, 1996, Broadcast system with associated data capabilities; Tsutumo Takahisa, 455/66, 45 :IMAGE AVAILABLE:

US PAT NO: 5,579,537 :IMAGE AVAILABLE: L15: 4 of 24

ABSTRACT:
A broadcast system includes a device to compare program material to be transmitted with a database of known material and to transmit along with the program material data corresponding to that program material. A corresponding receiving system stores the data in memory and displays, at the selection of the user, the data corresponding to the program material. The user selectively stores the data on a magnetic recording card for electronic coupon or other uses. Various modes of operation are selectable by the user, and the data may be used as electronic coupons, or to control attached equipment, or to sound alarms, or for other applications.

DETDESC:

DETD(5)

The . . . conventional subcarrier channel input of transmitter 110. The manner of making this conversion will depend on the particular program material **recognizer** 106 employed and the desired **data format** for transmission, and may readily be accomplished by one skilled in the art. In a preferred embodiment, data stream generator. . .

DETDESC:

DETD(11)

A . . . a means by which data may be inserted into screen storage database 156, thru, ugh database manager 155. For instance, **radio** station personnel may key in **data** to be associated with any particular entry of screen storage database, to permit such information to be transmitted over the. . .

DETDESC:

DETD(14)

Referring . . . FIG. 2. A signal transmitted by transmission system 100 of FIG. 1 is received by antenna 211 and demodulated into **audio** and **data** components in a conventional manner by demodulator 201. Demodulator 201 is of conventional design for detecting and demodulating **audio** and **data** signals transmitted over a main broadcast channel and a subcarrier of that channel, respectively. Audio program information from demodulator 201. . .

DETDESC:

DETD(46)

Referring . . . The "Full" mode corresponds to operation as described above in connection with FIG. 2, in which receiver 100 provides both **audio** output and display of associated **data**. A "Sound Only" mode

16. 5,020,106, Ma[redacted]8, 1991, Process for the crypt[redacted]aphic processing of data and cryptographic systems; Peter Rabold, et al., 380/49 :IMAGE AVAILABLE:

17. 4,953,196, Aug. 28, 1990, Image transmission system; Yasunori Ishikawa, et al., 348/18, 22 :IMAGE AVAILABLE:

18. 4,885,689, Dec. 5, 1989, Multilingual code receivers; Mark E. Kane, et al., 701/19; 246/167R; 340/825.13; 375/377 :IMAGE AVAILABLE:

19. 4,716,582, Dec. 29, 1987, Digital and synthesized speech alarm system; Kenneth E. Blanchard, et al., 379/28, 40, 41, 42, 50 :IMAGE AVAILABLE:

20. 4,684,349, Aug. 4, 1987, Audio-visual teaching system and method; Frank W. Ferguson, et al., 434/308, 335 :IMAGE AVAILABLE:

21. 4,552,535, Nov. 12, 1985, Mechanical assembly for audio-visual teaching machines; Steve Steffel, 434/315; 369/230; 434/316, 318, 321, 324, 335 :IMAGE AVAILABLE:

22. 4,482,328, Nov. 13, 1984, Audio-visual teaching machine and control system therefor; Frank W. Ferguson, et al., 434/310; 369/230; 434/316, 321, 324, 335 :IMAGE AVAILABLE:

23. 4,347,618, Aug. 31, 1982, Apparatus for processing weather radar information; Stephen P. Kavouras, et al., 375/259; 342/26; 348/442; 364/420; 455/9 :IMAGE AVAILABLE:

24. 3,742,145, Jun. 26, 1973, ASYNCHRONOUS TIME DIVISION MULTIPLEXER AND DEMULTIPLEXER; James M. Clark, et al., 370/505, 513, 522, 535 :IMAGE AVAILABLE:

L15 24 L11 (L) L2

=> d 1-24

1. 5,699,365, Dec. 16, 1997, Apparatus and method for adaptive forward error correction in data communications; Jeffrey T. Klayman, et al., 371/5.5, 41 :IMAGE AVAILABLE:

2. 5,696,437, Dec. 9, 1997, Intelligent low battery detection circuit for a paging receiver; Gyles Panther, et al., 324/430 :IMAGE AVAILABLE:

3. 5,581,369, Dec. 3, 1996, Apparatus and method for communicating electrocardiographic data to a facsimile machine; William H. Righter, et al., 358/442; 128/904 :IMAGE AVAILABLE:

4. 5,579,537, Nov. 26, 1996, Broadcast system with associated data capabilities; Tsutumo Takahisa, 455/66, 45 :IMAGE AVAILABLE:

5. 5,577,266, Nov. 19, 1996, Broadcast system with associated data capabilities; Tsutumo Takahisa, et al., 455/66, 45 :IMAGE AVAILABLE:

6. 5,564,073, Oct. 8, 1996, Broadcast system with associated data capabilities; Tsutomu Takahisa, 455/66; 348/473; 455/6.3, 154.1, 186.1 :IMAGE AVAILABLE:

7. 5,555,288, Sep. 10, 1996, Voice processing system with a configurable telephone line interface; James A. Wilson, et al., 379/67, 102.02, 229 :IMAGE AVAILABLE:

8. 5,491,838, Feb. 13, 1996, Broadcast system with associated data capabilities; Tsutomu Takahisa, et al., 455/66, 45, 186.1 :IMAGE AVAILABLE:

9. 5,416,473, May 16, 1995, Calendar driven selective call messaging system and operating method; Harry G. Dulaney, III, et al., 340/825.44, 825.22 :IMAGE AVAILABLE:

10. 5,347,545, Sep. 13, 1994, Multi-terminal communication equipment for smoothly and correctly communicating data between a plurality of terminal equipments; Tomoyuki Ishii, et al., 375/259; 340/825.04 :IMAGE AVAILABLE:

11. 5,263,195, Nov. 16, 1993, Superheterodyne radio receiver with digital automatic frequency control for a local oscillator; Gyles Panther, et al., 455/316, 182.2, 192.2, 208, 257 :IMAGE AVAILABLE:

12. 5,220,593, Jun. 15, 1993, Cellular radiotelephone credit card paystation method; Robert G. Zicker, et al., 455/407; 379/144, 145; 455/409, 410, 558 :IMAGE AVAILABLE:

13. 5,159,625, Oct. 27, 1992, Method of selecting the cellular system with which a cellular mobile radiotelephone communicates; Robert G. Zicker, 455/432, 419, 552, 557, 565 :IMAGE AVAILABLE:

14. 5,144,649, Sep. 1, 1992, Cellular radiotelephone credit card paystation method; Robert G. Zicker, et al., 455/409; 379/144, 145; 455/410, 419 :IMAGE AVAILABLE:

15. 5,038,202, Aug. 6, 1991, Image transmission system; Tsutomu Ooishi, et al., 348/396 :IMAGE AVAILABLE:

```
=> d his full

     (FILE 'USPAT' ENTERED AT 16:35:22 ON 29 JAN 1998)
               ACT TDTH2/A
              ---------
L1   (      6880)SEA PLU=ON  (UNIVERSAL OR GENERIC OR COMMON)(3A)(ADAPT###
OR
                INTERFAC###)
L2   (     17611)SEA PLU=ON  (RADIO OR AUDIO OR VOICE)(5A)(DATA OR PROTOCOL
 OR
                 TRANSFER####(2A)MODE)
L3   (       109)SEA PLU=ON  L1 (P) L2
L4   (       396)SEA PLU=ON  395/200.67,200.61,200.62,200.47,200.49,200.36,
200
                .77/CCLS
L5   (      1041)SEA PLU=ON  348/7,6,12,13/CCLS
L6   (       349)SEA PLU=ON  711/1,4,102,103/CCLS
L7   (       698)SEA PLU=ON  455/4.2,5.1,6.3,3.2/CCLS
L8             5 SEA PLU=ON  L3 AND ((L4 OR L5 OR L6 OR L7))
              ---------
L9          2082 SEA PLU=ON  (UNIVERSAL OR GENERIC)(3A)(INTERFAC### OR ADAP
T##
                #)
L10            0 SEA PLU=ON  AUTOMATIC####(5A)((DATA(2W)FORMAT###)(5A)RECOG
NI#
                #####)
L11          137 SEA PLU=ON  (DATA(2W)FORMAT###)(5A)RECOGNI######
L12            1 SEA PLU=ON  L9 (L) L11
L13            1 SEA PLU=ON  5432925/UREF
L14            2 SEA PLU=ON  L11 AND ((L4 OR L5 OR L6 OR L7 OR L8))
L15           24 SEA PLU=ON  L11 (L) L2


     FILE USPAT
       * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
       *                W E L C O M E   T O   T H E                  *
       *          U. S.   P A T E N T   T E X T   F I L E            *
       * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

=> sav l15 tdth3/a
```

```
=> d his full

     (FILE 'USPAT' ENTERED AT 16:35:22 ON 29 JAN 1998)
                ACT TDTH2/A
               ---------
L1   (       6880)SEA PLU=ON  (UNIVERSAL OR GENERIC OR COMMON)(3A)(ADAPT###
OR
                INTERFAC###)
L2   (      17611)SEA PLU=ON  (RADIO OR AUDIO OR VOICE)(5A)(DATA OR PROTOCOL
 OR
                 TRANSFER####(2A)MODE)
L3   (        109)SEA PLU=ON  L1 (P) L2
L4   (        396)SEA PLU=ON  395/200.67,200.61,200.62,200.47,200.49,200.36,
200
                .77/CCLS
L5   (       1041)SEA PLU=ON  348/7,6,12,13/CCLS
L6   (        349)SEA PLU=ON  711/1,4,102,103/CCLS
L7   (        698)SEA PLU=ON  455/4.2,5.1,6.3,3.2/CCLS
L8              5 SEA PLU=ON  L3 AND ((L4 OR L5 OR L6 OR L7))
               ---------
L9           2082 SEA PLU=ON  (UNIVERSAL OR GENERIC)(3A)(INTERFAC### OR ADAP
T##
                #)
L10             0 SEA PLU=ON  AUTOMATIC####(5A)((DATA(2W)FORMAT###)(5A)RECOG
NI#
                #####)
L11           137 SEA PLU=ON  (DATA(2W)FORMAT###)(5A)RECOGNI######
L12             1 SEA PLU=ON  L9 (L) L11
L13             1 SEA PLU=ON  5432925/UREF
L14             2 SEA PLU=ON  L11 AND ((L4 OR L5 OR L6 OR L7 OR L8))
L15            24 SEA PLU=ON  L11 (L) L2
                SAV L15 TDTH3/A
L16             1 SEA PLU=ON  5262964/PN
L17            15 SEA PLU=ON  5262964/UREF
                SAV L17 TDTH4/A
```

=> d his

(FILE 'USPAT' ENTERED AT 14:09:15 ON 29 JAN 1998)
L1 6880 S (UNIVERSAL OR GENERIC OR COMMON)(3A)(ADAPT### OR INTERFAC##
L2 17611 S (RADIO OR AUDIO OR VOICE)(5A)(DATA OR PROTOCOL OR TRANSFER#

=> s l1 (10a) l2

L3 24 L1 (10A) L2

=> d 1-24

1. 5,677,740, Oct. 14, 1997, Video receiver for storing compressed and encoded audio-visual data; Kazuma Sato, et al., 348/553, 714, 719 [IMAGE AVAILABLE]

2. 5,675,591, Oct. 7, 1997, Reverse checksum method for telecommunication systems; Mark D. Salzwedel, et al., 371/53 [IMAGE AVAILABLE]

3. 5,649,020, Jul. 15, 1997, Electronic driver for an electromagnetic resonant transducer; George W. McClurg, et al., 381/151; 340/311.1, 825.46; 381/152, 192, 200 [IMAGE AVAILABLE]

4. 5,629,976, May 13, 1997, TELCO-less CT-2 base; Wai S. Loke, et al., 370/280; 455/553 [IMAGE AVAILABLE]

5. 5,623,493, Apr. 22, 1997, Multiplexer demultiplexer switching device and network adapter; Tetsuya Kagemoto, 370/397, 420, 535 [IMAGE AVAILABLE]

6. 5,603,012, Feb. 11, 1997, Start code detector; Martin W. Sotheran, 395/500; 370/450 [IMAGE AVAILABLE]

7. 5,600,705, Feb. 4, 1997, Method for call establishment; Sanna Maenpaa, 455/433, 331 [IMAGE AVAILABLE]

8. 5,592,555, Jan. 7, 1997, Wireless communications privacy method and system; Brett B. Stewart, 380/49, 9, 29, 48 [IMAGE AVAILABLE]

9. 5,583,916, Dec. 10, 1996, Method for call establishment; Sanna Maenpaa, 455/433 [IMAGE AVAILABLE]

10. 5,576,629, Nov. 19, 1996, Plasma monitoring and control method and system; Terry R. Turner, et al., 324/709; 118/708; 156/345; 204/192.33, 298.08, 298.32; 216/61; 315/111.21; 336/155; 438/17 [IMAGE AVAILABLE]

11. 5,572,348, Nov. 5, 1996, Universal demarcation point; Jeffrey A. Carlson, et al., 359/125; 348/6; 359/163, 173; 379/399; 439/49, 535; 455/3.3 [IMAGE AVAILABLE]

12. 5,537,594, Jul. 16, 1996, Query processing in a mobile communications system home location register; John P. Shannon, et al., 395/680; 364/222.2, 222.4, 282.1, 919.2, 919.4, 974, 974.6, DIG.1, DIG.2 [IMAGE AVAILABLE]

7. 5,577,069, Nov. 19, 1996, Signalling method and structure suitable for out-of-band information transfer in communication network; Hung-Wah A. Lau, et al., 375/242; 341/55, 60; 370/445; 375/220 :IMAGE AVAILABLE:

8. 5,576,843, Nov. 19, 1996, System and method for controlling play of multiple dialog audio tracks of a software carrier; Christopher J. Cookson, et al., 386/97, 102, 104, 106 :IMAGE AVAILABLE:

9. 5,570,296, Oct. 29, 1996, System and method for synchronized presentation of video and audio signals; Lawrence F. Heyl, et al., 395/200.61; 370/503 :IMAGE AVAILABLE:

10. 5,537,409, Jul. 16, 1996, Synchronizing system for time-divided video and audio signals; Yoshiaki Moriyama, et al., 370/471; 348/423; 370/474, 506, 509, 535 :IMAGE AVAILABLE:

11. 5,521,927, May 28, 1996, Elementary stream packetizing unit for MPEG-2 system; Do N. Kim, et al., 370/474; 348/423 :IMAGE AVAILABLE:

12. 5,521,922, May 28, 1996, Data demultiplexer; Yasushi Fujinami, et al., 370/543; 348/423; 352/12, 25 :IMAGE AVAILABLE:

13. 5,497,241, Mar. 5, 1996, System and method for controlling display of motion picture subtitles in a selected language during play of a software carrier; Lewis S. Ostrover, et al., 386/97 :IMAGE AVAILABLE:

14. 5,469,370, Nov. 21, 1995, System and method for controlling play of multiple audio tracks of a software carrier; Lewis S. Ostrover, et al., 711/111; 84/610, 634; 345/352; 369/60; 395/894 :IMAGE AVAILABLE:

15. 5,463,565, Oct. 31, 1995, Data block format for software carrier and player therefor; Christopher J. Cookson, et al., 711/113; 348/396, 500; 369/124, 275.1, 275.3 :IMAGE AVAILABLE:

=> s 5262964/pn
L16 1 5262964/PN

=> d cit,ab

1. **5,262,964**, Nov. 16, 1993, Method and apparatus for variable playback speed of multimedia data interchange within a data processing system; Gordon W. Bonsall, et al., 395/200.76; 348/705; 370/472; 375/242 :IMAGE AVAILABLE:

US PAT NO: **5,262,964** :IMAGE AVAILABLE: L16: 1 of 1

ABSTRACT:
The method and apparatus may be utilized for the efficient interchange of multimedia data in a data processing system. A sequential data stream is established which includes multiple variable length consecutive sections, each of which includes multiple data samples. Each data sample preferably includes a collection of data and a control structure or header which is utilized to specify a manner of interpreting the collection of data. In the depicted embodiment of the present invention a track collection index is transmitted in conjunction with the sequential data stream and utilized to identify the physical location of various track samples within the data stream. Additionally, a track sequence index is provided which may be utilized to identify the logical order in which the data samples are to be utilized in each selected track to create a multi-media presentation along with an indication of the playback speed to be utilized. This sequential data stream, track collection index and track sequence index are then transmitted throughout a distributed data processing system utilizing various personal computers or intelligent work stations, permitting multimedia data to be efficiently interchanged.

=> s 5262964/uref
L17 15 5262964/UREF

=> d 1-15

1. 5,703,795, Dec. 30, 1997, Apparatus and methods for accessing information relating to radio and television programs; Roy J. Mankovitz, 348/473 :IMAGE AVAILABLE:

2. 5,689,704, Nov. 18, 1997, Recording medium, recording/playback device which uses commands in character string form for audio system control; Tadao Yoshida, et al., 1/1 :IMAGE AVAILABLE:

3. 5,630,104, May 13, 1997, Apparatus and method for providing multimedia data; Hal H. Ottesen, et al., 395/500; 345/302 :IMAGE AVAILABLE:

4. 5,598,276, Jan. 28, 1997, System and method for controlling play of multiple versions of the same motion picture stored on an optical disk; Christopher J. Cookson, et al., 386/46; 348/5; 386/126 :IMAGE AVAILABLE:

5. 5,594,924, Jan. 14, 1997, Multiple user multimedia data server with switch to load time interval interleaved data to plurality of time interval assigned buffers; Hal H. Ottesen, et al., 395/851; 348/7; 395/872, 894 :IMAGE AVAILABLE:

6. 5,583,791, Dec. 10, 1996, Recording-reproduction apparatus; Isao Harigaya, et al., 348/575 :IMAGE AVAILABLE:

```
=> d his full

     (FILE 'USPAT' ENTERED AT 14:09:15 ON 29 JAN 1998)
L1          6880 SEA PLU=ON  (UNIVERSAL OR GENERIC OR COMMON)(3A)(ADAPT###
OR
                 INTERFAC###)
L2         17611 SEA PLU=ON  (RADIO OR AUDIO OR VOICE)(5A)(DATA OR PROTOCOL
 OR
                  TRANSFER####(2A)MODE)
L3            24 SEA PLU=ON  L1 (10A) L2
L4           109 SEA PLU=ON  L1 (P) L2
                 SAV L3 TDTH/A
                 SAV L4 TDTH1/A
```

=> d 2-4 cit,kwic

2. 5,481,542, Jan. 2, 1996, Interactive information services control system; Gary L. Logston, et al., **348/7**, **13**; 370/442, 461, 473, 474 :IMAGE AVAILABLE:

US PAT NO: 5,481,542 :IMAGE AVAILABLE: L8: 2 of 5
US-CL-CURRENT: **348/7**, **13**; 370/442, 461, 473, 474

DETDESC:

DETD(6)

In particular, the present invention utilizes four **common interfaces** for providing television transmission information service channels for conveying digitized representations of 525-line NTSC color or monochrome video signals, associated. . . which can be used to transfer Motion Picture Experts Group (MPEG-2) Systems transport packets containing compressed digital video and **audio data** as well as other digital service information from the SP 20 to the demultiplexer/modulator 50. The interface between the demultiplexer/modulator. . .

3. 5,444,769, Aug. 22, 1995, Data communications system for establishing links between subscriber stations and broadcast stations; Jacobus P. L. Koen, et al., 379/92.01; **348/13**; 379/93.17 :IMAGE AVAILABLE:

US PAT NO: 5,444,769 :IMAGE AVAILABLE: L8: 3 of 5
US-CL-CURRENT: 379/92.01; **348/13**; 379/93.17

DETDESC:

DETD(5)

Referring now to FIG. 3, the multiplexer units 14.1 to 14.X are incorporated on respective **voice/data** switching, or VDS multiplexer cards 15.1 to 15X mounted together in a multiplexer card cage (not shown). Each card 15.1. . . 15.1 to 15.X within the multiplexer card cage. A control unit 58 controls the output of data via the bus **interface** unit 56. The **common** bus 54 is connected to a communications interface card (CIC) 60 which is assimilates the data from all the multiplexer. . .

4. 5,268,846, Dec. 7, 1993, Method and apparatus for nonsequential multimedia data interchange in a data processing system; Gordon W. Bonsall, et al., **395/200.61**; 370/472; 395/200.66 :IMAGE AVAILABLE:

US PAT NO: 5,268,846 :IMAGE AVAILABLE: L8: 4 of 5
US-CL-CURRENT: **395/200.61**; 370/472; 395/200.66

SUMMARY:

BSUM(9)

Additionally, **audio data** may be stored and interchanged as coded data, which includes coded values for factors such as tone, duration, loudness, etc. One example of coded **audio data** is the so-called Musical Instrument Digital Interface (MIDI), in which keystrokes are encoded and exchanged utilizing a **common interface**. Finally,

```
=> s 395/200.67,200.61,200.62,200.47,200.49,200.36,200.77/ccls

            94 395/200.67/CCLS
            41 395/200.61/CCLS
            28 395/200.62/CCLS
            57 395/200.47/CCLS
            92 395/200.49/CCLS
            72 395/200.36/CCLS
            39 395/200.77/CCLS
L5         396 395/200.67,200.61,200.62,200.47,200.49,200.36,200.77/CCLS
                  ((395/200.67 OR 395/200.61 OR 395/200.62 OR 395/200.47 OR
 39
                   5/200.49 OR 395/200.36 OR 395/200.77)/CCLS)

=> s 348/7,6,12,13/ccls

           312 348/7/CCLS
           394 348/6/CCLS
           336 348/12/CCLS
           326 348/13/CCLS
L6        1041 348/7,6,12,13/CCLS
                 ((348/7 OR 348/6 OR 348/12 OR 348/13)/CCLS)

=> s 711/1,4,102,103/ccls

            86 711/1/CCLS
           109 711/4/CCLS
            20 711/102/CCLS
           136 711/103/CCLS
L7         349 711/1,4,102,103/CCLS
                 ((711/1 OR 711/4 OR 711/102 OR 711/103)/CCLS)

=> s 455/4.2,5.1,6.3,3.2/ccls

           246 455/4.2/CCLS
           320 455/5.1/CCLS
           162 455/6.3/CCLS
           102 455/3.2/CCLS
L8         698 455/4.2,5.1,6.3,3.2/CCLS
                 ((455/4.2 OR 455/5.1 OR 455/6.3 OR 455/3.2)/CCLS)
```